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AUTHOR McCreight, Carolyn
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ABSTRACT

This paper examines research on teacher shortages, attrition, recruitment, and retention. Teacher attrition is the largest single factor determining demand for additional teachers in the United States. Teachers leave for such reasons as: low salaries; unprepared for the realities of teaching; rigorous certification examinations; lack of career advancement opportunities; low emphasis on professional development; marital status; health-related haphazard hiring and retention practices; and retirement. Many states are experiencing shortages, and shortages occur in many subject areas. Strategies for reducing teacher shortage include: preparing new teachers via formal induction programs; recruiting private school teachers and certified people from the private sector; recruiting online; offering loan forgiveness programs; raising public awareness; training paraprofessionals; awarding conditional scholarships to outstanding candidates; allowing out-of-field teaching; employing retired teachers; and offering day care for teachers' children. Barriers to recruitment and retention include: pay cuts when moving from one district to another; the need for recertification after moving to another state; and low salaries. Suggestions for recruitment and retention include: conducting statewide assessments of teacher supply and demand; establishing K-16 collaboration to match graduates with jobs in high demand areas; developing K-16 partnerships to improve teacher preparation; improving working conditions; upgrading hiring practices; and providing ample time for staff development. (Contains 30 references.) (SM)

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Teacher Attrition, Shortage, and Strategies for Teacher Retention

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by

Carolyn McCreight, Ed. D.
Department of Professional Programs
Texas A & M University
August 1, 2000

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Teacher Attrition, Shortage, and Strategies for Teacher Retention

Introduction

There are 53.2 million students in public and private elementary and secondary schools in the United States. Increases in the student population will continue, resulting in 54.3 million public and private school students in 2008. Student enrollment among public schools will rise from 47 million in 1999 and to 48 million in 2008 (Curran, Abrahams, & Manual, 2000).

There are presently 3.1 million teachers in public and private elementary and secondary schools; 2.7 million in public schools alone. The U. S. Education Department estimates that approximately 150,000 new teachers are hired in the U. S. each year to replace those that have retired or left the profession (Natt, 1999). Enrollment increases over the next 10 years will push the number of new hires needed to staff the Nation's classrooms form 150,000 to 220,000 a year (Curran et al., 2000). The Nation will need 2.4 million newly hired public school teachers and 568,000 private school teachers between now and 2008-2009 (Natt, 1999). In light of impending teacher shortages, a study of teacher attrition, shortage, recruitment, and retention is warranted.

Teacher Attrition

Boe, Bobbit and Cook (1996) define teacher attrition as a component of teacher turnover. Teacher turnover may include teachers exiting the profession, but may also include teachers who change fields. Teacher attrition is the largest single factor determining demand for additional teachers in the U. S.

Since the 1970's and early 1980's, teacher attrition has been a problem (Coasman, Hampton, & Herman, 1999). During the 1970's and 1980's, 25% of the people certified to teach never began teaching or left teaching within a few years. Data from the 1987-1988 Schools and Staffing Survey and the 1988-1989 Teacher Follow-up Survey compiled by the National Center of Education Statistics (NCES) (1995) revealed a 5.6% attrition rate for teachers in the public schools and a 12.7% attrition rate for teachers in private schools.

Each year more individuals are being trained to teach to meet the increasing enrollment demands of U. S. schools, but only about 60% of trained teachers actually enter the teaching profession. At least four million people in the U. S. are trained to teach but choose not to (Curran et al., 2000). Knepper (1999) in a study of 1992-1993 teacher attrition rates for the American Association of School Administrators (AASA) Leadership News found that each year approximately 6% of America's teaching force leave teaching for other careers and 7% change schools. One in five graduates start teaching after college but leave the profession within four years. In urban districts, close to 50% of newcomers leave the profession during the first five years of teaching (Streisand & Toch, 1998).

The NCES (1995) found that first year teachers are 2.5 times more likely to leave the profession than their more experienced counterparts. Fifteen percent of beginning teachers will leave after their 2nd year and still another 10% after their 3rd year. The attrition rates for both public and private school teachers

were highest at the beginning of a teacher's career (zero through nine years) and toward the end of the career (25 or more years of experience).

According to Huling-Austin (1986), 40-50% of teachers leave the profession during the first seven years of their career and in excess of two-thirds of those will do so in the first four years of teaching. More teachers leave within the first nine years of their careers; fewer teachers leave during mid-career and the rate increases as teachers approach retirement.

Paula Knepper's teacher attrition study for AASA Leadership News in 1999 found that education graduates with higher standardized test scores were less likely to teach and those that did teach were more likely to leave the profession. Women were consistently more inclined to teach than men, to remain in the profession, and were twice as likely to have taught only in elementary school. Certified teachers, in general, were more likely to have remained in the profession and to expect to be teaching in the longer term.

Whitener (1997) states that the annual recruitment and placement of entering teachers is a time-consuming and costly burden on school administrators. Teachers hired to replace the teachers who have left often are not as qualified in terms of teaching experience. The induction of entering teachers tends to be disruptive to instructional programs until the new teachers are assimilated as fully functioning members of school staffs (Rollefson, 1993).

Why Teachers Leave

Teachers leave the teaching field for a number of reasons, but the main reasons they leave follow.

1. Low Salaries. Approximately one-third of the 105,000 college students graduating certified to teach don't go into teaching due to poor pay. Salaries begin at a national average of $26,000 which is considerably below the starting pay for college graduates in other fields. Teachers with higher salaries stay in education longer than those with lower salaries (Streisand & Toch, 1998). According to Gordon Ambach of the Council of Chief State Officers, it is difficult to attract top talent into teaching when salaries are 50 to 75 percent lower than if those candidates go into law or medicine (Curran et al., 2000). Computer technicians make $40,000 upon graduation from college. Teachers start out teaching at between $25,000 and $30,000 (Bondi & Trowbridge, 1999).

   Earnest Rose, Dean of Education and Human Services at Montana State University at Billings said that states and districts that have a lighter salary scale are going to end up probably getting people who aren't mobile or aren't the strongest candidates in the pool. He estimates that this year, 15% to 20% of his school's graduates will take their first jobs out of state where they can earn up to $10,000 more than in Montana (Bradley, 1999a).

New York licensed 21,500 teachers in 1996-1997, but only 5,900 were hired. Yet New York schools employed 9,000 unlicensed teachers that year, the vast majority in New York City. Part of the problem in New York is that suburban districts pay teachers as much as 20% a year more than New York City, creating a drain on the city's labor pool (Bondi & Trowbridge, 1999).

The Dallas Morning News (1999) staff reported that Texas still faces teacher shortages despite pay raises. A $3,000 raise was appropriated by the Legislature recently says Texas State Teachers Association President, Ignacio Salinas, Jr., but teachers are still leaving the profession for higher paying jobs in the private sector.

2. Unprepared for the Realities of Teaching. Teachers leave the field because they can't cope with teaching problems. Discipline, difficulties with parents, and lack of sufficient or appropriate teaching materials are among the problems experienced by beginning teachers (Henry, 1986). Also, beginning teachers are often given the most difficult teaching assignments and receive little or no support (Henry, 1986; Boe et al., 1996). New teachers are more likely to leave the field within five years if they teach in a disadvantaged district (Natt, 1999).
3. Rigorous Certification Exams. Large numbers of education majors are failing the teaching licensing exams many states began requiring

in recent years. To ease the teacher shortage crisis some districts are letting up on certification standards (Streisand & Toch, 1998).

4. Lack of Career Advancement Opportunities. The teaching profession does not offer career advancement as other professions offer. Teachers exhibiting expertise and advanced skills are not rewarded for performance (Curran et al., 2000). The only advancement teachers can aspire to is educational administration which is another job entirely (Streisand & Toch, 1998).
5. Low Emphasis on Professional Development. Curran et al. (2000) in a report on teacher status for the National Governors' Association found that low emphasis on professional development results in insufficient training and support for teachers. According to the National Commission on Teaching and America's Future (NCTAF) (1996) there is less support and fewer resources devoted to teaching in the U. S. than in Europe and Asia.
6. Marital Status. Boe, Bobbitt, and Cook (1997) found that the variable of marital status is strongly correlated with teacher attrition. Ninety percent of the unmarried teachers, but only 45.8% of the married teachers were still teaching.
7. Health-Related Problems. The NCES (1995) found that 30.3% of public school teachers and 41.6% of private school teachers left the

profession due to health problems, pregnancy/child rearing, or a personal family move.

8. Haphazard Hiring and Retention Practices. The NCTAF (1996) found that teaching in the U. S. is thwarted with unorganized hiring practices and inadequate processes to retain and reward good instructors.
9. Retirement. Large numbers of teachers are approaching retirement at a time when America's school-age population is increasing. In 1996, almost 26% of teachers were past the age of 50. Over the next 10 years about 700,000 teachers are expected to retire, accounting for about 28% of the hiring needs during that period (Streisand & Toch, 1998). The NCES (1995) found that 30.4% leave due to retirement.

States and Teacher Shortage

Texas, Arizona, California, Florida, and Nevada are experiencing teacher shortages (Streisand & Toch, 1998; Bradley, 1999a). Bondi and Trowbridge (1999) reported shortages in New York, Georgia, and Wisconsin. Most big city schools in America have some level of shortages (Streisand & Toch, 1998; Bradley, 1999a). Connecticut, Minnesota, New York, Pennsylvania, and Wisconsin consistently produce many more teachers than their schools hire, although some urban districts in those states suffer persistent problems finding qualified teachers (Bradley, 1999c). About 18,000 new teachers are certified in

Texas each year, but there are about 40,000 positions that need to be filled (Dallas Morning News, 1999).

Areas of Shortage

Anne Bradley (1999a) found that many states are likely to find themselves not with absolute teacher shortages, but with a shortage of teacher applicants in particular subject areas. Approximately 77% of urban schools have shortages in math, science, special education, bilingual education, and elementary education (Bondi & Trowbridge, 1999; Merrow Report, 1999). Sixty-eight percent of districts nation-wide have openings for math and science teachers and 85% have immediate openings in special education (Bondi & Trowbridge, 1999).

Most public school students live in rural and urban areas, unfortunately, they face the greatest shortages of teachers, qualified and unqualified. Underfunded urban and rural schools were most likely to have shortages (Curran et al., 2000).

Rural areas often have small numbers of prospective teachers within the community, low salaries, and substandard facilities; which together contribute to difficulty in attracting and retaining teachers from outside the community. Many qualified teachers leave rural schools for superior pay and better health benefits in larger districts.

Urban schools are faced with challenges that many experience teachers no longer want to face, such as crime, poverty, and packed classrooms.

Approximately 65% of school districts in high-poverty urban areas are forced to hire non-certified teachers or long-term substitutes (Chaddock, 1998).

Urban and rural schools are often those with higher levels of students in poverty and are forced to hire the newest teachers with little or no experience. Urban and rural low-income schools face the highest rates of out-of-field teaching, approximately 26% in English; 43% in math; 60% in history; and 65% in science. In contrast to urban and rural schools, suburban schools offer higher pay, smaller class sizes, and superior facilities (NCES, 1995).

School districts across the country are experiencing shortages of qualified teachers. Shortages are most acute in southern and western states, urban and rural schools, and in mathematics, science, English as a second language, and special education (Curran et al., 2000). If we want to retain new teachers, particularly those teaching in inner-city schools, we must pay them well, introduce them to the profession humanely, support them through the challenges of the beginning years, and provide them with staff development needed to make them successful in the profession (Boe et al., 1997).

Strategies for Reducing Teacher Shortage

Districts across the nation are using a number of strategies to fill vacancies in the teaching ranks. Some of those strategies follow:

1. Prepare New Teachers. NEA (1996) in a study of teacher induction programs found that less than half of the teachers hired during the last nine years participated in formal induction programs during their first

teaching year. New teachers are not adequately prepared and are often placed in difficult teaching situations with no support (Archer, 1999).

The California Commission on the Teaching Profession, a task force created by the legislature studied teacher attrition and retention and recommended strategies for retaining new educators. In 1992, project directors created the Beginning Teacher Support and Assessment Program which has become a permanent state initiative run by the state education department and the Commission on Teacher Credentialing. For districts that take part, the support program offers $5,000 for each new teacher--$3,600 coming directly from the state, the other $2000 to be raised locally. Districts use their support-program money to finance one-on-one mentoring, intensive summer orientation programs, and training workshops for first-and second-year teachers. The money pays for substitutes for veteran teachers freed to conduct model lessons for new recruits. The new teachers also are able to visit the classrooms of veteran teachers. Program guidelines are aligned with the new California teaching standards (Archer, 1999).

Although 27 states had induction programs as of 1996-1997, only seven mandated and financed them, according to a two-year survey of such efforts released by Recruiting New Teachers, Inc., a nonprofit

group based in Belmont, Massachusetts. Induction re-emerged in the late 1900's after a 10 year period of silence said Elizabeth Fideler, a co-author of a report by Recruiting New Teachers, Inc. There is growing attention to induction as a strategy for reducing attrition, weeding out unfit teachers, and encouraging competent teachers to stay and thrive (Archer, 1999).

Mr. Ingersoll, an assistant professor at the University of Georgia in an in-depth study of teacher attrition stated that policy makers must make teacher induction programs central to their reform efforts. Well respected, well-supported, and well-paid professionals require minimal efforts for retention (Archer, 1999).

2. Recruit Private School Teachers. Vacancies in public schools are sometimes filled by teachers moving from private schools (Curran et al., 2000).

3. Recruit Certified Individuals from the Private Sector. Forty-two percent of the 1993-1994 teachers hired finished a college preparation program and had not taught previously. Twenty-four percent were teaching for the first time but had been doing something other than going to college in the previous years. Fifty-five percent of teacher candidates admitted into teacher preparation programs at the graduate level and 11% at the undergraduate level were entering teaching from career fields other than education (Curran et al., 2000).

Los Angeles hired 1,500 new teacher recruits from the military, retail sales, and downsized industries. Most of the recruits were in their 30's when they entered the teaching program, a two year rigorous course of study with a vast support system. Candidates for the program receive intense screening. The five year study of retention rates on recruits from the Los Angeles program was 80%. Keys to attraction and retention were higher pay and a greater sense of professionalism in teaching (Streisand & Toch, 1998).

4. On-line Recruiting. Some school districts, such as New York and Minnesota have launched on-line teacher recruitment web sites (Channel 4000 Staff, 1999; Bradley, 1999b).
5. National Job Bank. Secretary of Education Richard W. Riley announced in 1999 that the Education Department was creating a national job bank and clearinghouse for teacher recruitment. The job bank provides teachers with information on vacancies nationwide and links districts to a potential pool of new hires (Bradley, 1999b).
6. Collaborative Projects. AT&T launched an initiative to bring universities, local school systems, and teacher unions together to develop programs focused on entry-level teachers in urban schools. The initiative provides grants of $400,000 to a university school system and teacher union team in New York, Florida, and San Francisco. The program uses veteran teachers to mentor new

teachers and support new teachers through the first years in the profession. Teacher training and certification courses in the program are designed to reflect the experience of the inner city teachers. Results are expected to basically change the practice teaching methods for urban schools, significantly increase the pool of effectively prepared teachers, and reduce the attrition rates for new teachers in urban schools (Lynch, 1991).

In 1996 a collaborative venture with the Chancellor of the Texas A & M University System, the Commissioner of Education, and the deans of the colleges of education in the Texas A & M University System launched a partnership to use the resources of the university and the Texas Education Agency to address state educational issues of concern. In March, 1999, The Regent's Initiative for Excellence in Education was established to impact the quality and productivity of educator preparation programs in the Texas A & M University System. Programs developed as a result of the initiative include rallies to foster pride in the education profession, induction and retention programs, and curriculum initiatives to foster quality curriculum alignment between the public schools and the university (The Institute for School-University Partnerships, 2000).

7. Alternative Certification Programs. Streisand and Toch (1998) and Natt (1999) found that a number of states are using "alternative

certification programs" to fill teacher vacancies. In most cases the new hires teach by day, often under the supervision of a veteran teacher, and take courses at night on how to teach.

Troops to Teachers is an alternative certification program that prepares retired military personnel and other mid-career professionals to become teachers. The Teach America alternative certification program has placed 5,000 college graduates with no education coursework in teaching positions in needy urban and rural areas since 1989 (Bradley, 1999a).

In New Jersey, 20% of beginning teachers go through alternative certification . Studies in several states, including Texas and California found that alternatively certified teachers tend to score as well as teachers with education degrees on licensing tests. They also tend to stay on the job as long or longer (Streisand & Toch, 1998).

8. On-the-Job Training. Maryland and Virginia are developing alternative licensing programs that substitute one-the-job training for years of education course work. Such programs are seen as especially attractive to mid-career professionals in hard-to-fill areas such as math and science (Bradley, 1999a).

9. Bonuses. Dallas Independent School District paid $1,500 sign-up bonuses to 900 teachers in critical-need areas (Bradley, 1999a).

Bondi and Trowbridge (1999) found other districts offering $1,000 bonuses to teachers who commit to teaching in a district for three to five years.

In Massachusetts recruiters traveled the nation to find 50 outstanding candidates to become public school teachers and earn $20,000 signing bonuses. The state had 5,000 requests for information and expects to process about 600 applications (Bradley, 1999a).

10. Loan-Forgiveness Programs. Loan-forgiveness programs help teachers pay off college loans in exchange for teaching in hard-to-fill subject areas or in hard-to-staff schools (Bradley, 1999a).
11. Public Awareness. Recruitment and public awareness campaigns across the Nation are being launched to encourage people to enter the teaching profession (Bradley, 1999a).
12. Paraprofessionals. Some states have launched programs to assist paraprofessionals in gaining teacher licensure (Bradley, 1999a).
13. Retirement Credit Increases. In Nevada, the state senate is considering a bill that would offer teachers an extra year of retirement credit for every 5 years they teach in schools classified as "needing improvement." The bill would also allow teachers in rural schools to convert their unused sick leave into up to one year of retirement credit. It would give new hires full credit for years of experience elsewhere.

Most districts now credit teachers with just five years, no matter how long they've been teaching (Bradley, 1999a).

14. Scholarships. In Washington the state education agency is considering conditional scholarships of up to $3,000 annually for 200 outstanding teacher candidates in such shortage areas as math, science, and special education. Recipients would have to maintain a 3.0 or better grade point average and commit to two years of teaching in a Washington public school for every $3,000 received (Bradley, 1999a).
15. Multiple Offerings. Mississippi offers scholarships, special home loans, low-cost rental housing, and moving expenses for people willing to teach in areas of the state, such as the impoverished Mississippi Delta region that attracts few applicants of any teaching specialty. Some districts offer teachers bonuses, housing assistance, and higher starting salaries (Bradley, 1999a).
16. Out-of-Field Teaching. Dixon (1998) found that districts resort to hiring "out of field" because the dwindling teacher supply cannot meet the demand created by population growth and mandates to reduce class size. Sixty-five percent of teachers teach in a field in which they have neither majored or minored (U. S. Department of Education, 1995). One-fourth of the new teachers are hired to teach subjects in which they have no certification (Chaika, 2000).

17. Hire Uncertified Personnel on Emergency Credentials. Nationwide, more than 1/4th of newly hired teachers enter the profession without having fully met state licensing standards, according to the NCTAF. Twelve percent of new teachers are hired with no licensing at all, while another 15% hold temporary provisional or emergency licensure (Bradley, 1999c). Chaika (2000) found that 42 states issue emergency credentials to people who have never taught.

Henry (1997) in a study of teacher shortage discovered that nearly 1/4th of new public school teachers lack necessary qualifications for their jobs, according to a new report by the NCTAF. The organization based its findings on about 200 studies done over two years. Twenty-seven percent of new teachers had not completed licensing requirements in their main teaching areas in 1994, 11% were without any license, and 16% held emergency, temporary, or alternative licenses. Twenty-one percent of veteran high school teachers had less than a minor in their main teaching areas, including 28% of math teachers, and 22% of science and social studies teachers. Fifty-nine percent had less than a minor in their secondary teaching area.

Streisand and Toch (1998) discovered that many districts are letting up on certification standards. Some systems permit teachers to teach science without having a major in biology or chemistry.

In California 29,000 individuals were employed with emergency credentials. Many have no teacher training or experience. Most of the state's physical science and math teachers don't have a minor in their field.

Teacher dropout rates are greatest among emergency teachers, who are the least skilled, but often draw the most challenging assignments. There is a dearth of high-quality teachers at a time when the Nation is raising educational standards and thus requiring more capable teachers than ever before.

In 1994, 17.4% of unlicensed teachers taught at schools with a majority of low-income students. Often unlicensed teachers have larger classes and teach more of them than professionals at better-funded schools. Only 4.4% of unlicensed teachers taught at schools with less than 5% low income students (Natt, 1999).

18. Substitute Teachers in Full-time Positions. In Topeka, Kansas the 501 school districts substitute teachers are welcomed with an orientation brunch and receive holiday teas, retirement salutes, and the identification badges like regular teachers (Streisand & Toch, 1998).

Standards for substitute teachers in Topeka are low. Emergency substitutes with as few as 60 hours of college credit are often hired for 30 days, then get extended for another 30 days. Substitutes argue that they perform the same work that regular teachers do with less

pay. In Utah, all that a substitute needs to teach is a heart beat, a high school degree, and no criminal record. Fairfax County, Virginia requires only two years of college for substitutes. Off-duty firefighters and police officers in Richmond, Virginia are recruited to substitute teach (Streisand & Toch, 1998).

19. Employment of Retired Teachers. In Broward County, Florida Streisand and Toch (1998) found that retired teachers receive letters inviting them to substitute or do long-term teacher leaves. Thirty-four percent of new teachers were former teachers returning to active practice.

20. Day Care for Teachers' Children. Some districts offer child care for teachers. Chaika (2000) reports that Buford, a district northeast of Atlanta, Georgia subsidizes an on-site day-care center and plans to install a closed-circuit camera to allow teachers to check on their children during the day. Carmel Clay Schools, a district north of Indianapolis built two one-site day-care centers and plans to build more.

Barriers to Teacher Recruitment and Retention

Many teachers moving from one district to another don't get credit for all their experience and often are forced to take pay cuts. Teachers' pensions aren't transferable from state to state, as are those in higher education. States

don't recognize one another's licenses, often requiring veteran teachers to take coursework and/or tests to get fully licensed (Curran et al., 2000).

The current labyrinth of disconnected state laws has become a significant drawback to keeping good teachers in the profession in our increasingly mobile society, according to U. S. Secretary of Education Richard W. Riley. Eric Hersch, a senior policy analyst for the National Conference of State Legislatures in Denver, Colorado calls the portability of both teachers' experience and their pensions a "huge issue" for teacher recruitment. National standards for teachers may be the answer for giving teachers mobility to move where shortages exist. It is difficult for fully prepared, experienced teachers to gain a new license when they move from a state with a surplus to one with a shortage (Curran et al., 2000).

The Nation's teaching force remains unbalanced in both gender and racial makeup. Three-fourths of teachers are female. The gender gap narrows in upper grades. Nine out of 10 teachers are white. The need for male, elementary school teachers and minority teachers has reached crisis proportions (Archer, 1997). A number of organizations have consistently stressed the importance of Black, Hispanic, Asian American, and Native American role models for both minority and majority students, yet there is a significant disparity between the number of teachers of color and those of student color (Lewis, 1996). The supply of minority teachers is not keeping pace with the demographic changes. By 2010, 40% of Americans ages 5 to 19 will be Latino,

African American, Asian American, or Native American. These students pose unique challenges for teachers because their social and economic backgrounds often include high-risk factors, such as poverty, low parent education level, and limited English proficiency (Archer, 1997).

Teacher turnover rates were highest in public schools where half or more of the students enrolled received free or reduced lunches. Schools with 50% or more students receiving free or reduced lunches experienced a teacher turnover rate of 10% in 1990-1991. The average turnover rate in public schools with low concentrations of students receiving free or reduced price lunches was approximately 8%. Lower salaries and fewer benefits in small public and private schools may have contributed to higher turnover rates for teachers in 1990-91 (NCES, 1995).

Suggestions for Recruitment and Retention

States and school districts interested in addressing issues of teacher supply and demand should launch a comprehensive program of recruitment and retention efforts that include the following:

- conduct statewide assessments of teacher supply and demand;
- establish kindergarten through college (K-16) collaboration to match graduates with jobs in high-demand areas;
- develop K-16 partnerships to improve teacher preparation;
- create mechanisms to broaden recruiting, streamline hiring, and facilitate teacher mobility;

- offer incentives for teachers to take jobs in subjects and geographical areas with shortages; and
- improve working conditions and on-going support for teachers (Curran et al., 2000).

Lashway (1999) suggests teacher recruitment and retention at the local level including the following strategies:

- upgrade hiring practices using more systematic and sophisticated procedures,
- recruit teachers from local sources such as the paraprofessional pool and second-career community members,
- implement strong mentoring programs,
- modify the salary structures to link pay to teacher skill or accomplishments, and
- provide ample time for staff development activities (Lashway,1999).

Summary

Teacher attrition, retention, and the teacher shortage in the U. S. are receiving renewed attention as the Nation's student enrollment increases, class size reduction initiatives take effect, and stringent certification standards are instituted. A shortage of two million teachers is expected in the next decade.

Teachers leave the profession for a number of reasons. Some of the most common reasons include low salaries, lack of support during the first years

of teaching, lack of opportunities for advancement, and retirement. In addition, state teacher credentialing varies from state to state causing added difficulty for teachers to secure certification when relocating.

Southern and western states are currently experiencing the greatest shortages of teachers. Urban and rural districts experience the greatest shortages, particularly in certain subject areas such as math, science, social studies, bilingual education, English as a second language, and special education.

Districts seek strategies for curbing the teacher shortage as hiring new teachers year after year is a drain on district resources, staff stability, and student achievement. Some recommended strategies include conducting a statewide assessment of teacher supply and demand, developing K-16 partnerships to improve teacher preparation, improving teacher working conditions, providing support to teachers when needed, and offering paraprofessionals opportunities for becoming certified teachers.

Barriers districts face in recruiting and retaining teachers include inflexible certification standards from one state to the next, low percentages of teachers of color, male teachers, and low pay. Such barriers can only be overcome by recognizing the importance of the teaching profession to the Nation's economy and ability to compete in the world market.

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